## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## LISTING OF CLAIMS:

## 1-12. (canceled)

13. (currently amended) An additive for an electrolyte solution for an electrochemical device, said additive comprising a compound represented by the following formula:

wherein

 $R_1$  and  $R_4$  are each independently selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 5 carbon atoms, a substituted or unsubstituted fluoroalkyl group having 1 to 5 carbon atoms, a polyfluoroalkyl group having 1 to 5 carbon atoms,  $-SO_2X_1$ , wherein  $X_1$  is a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms,  $-SY_1$ , wherein  $Y_1$  is a substituted or unsubstituted alkyl group having

1 to 5 carbon atoms, -COZ, wherein Z is a hydrogen atom or a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms, and a halogen atom,

with the proviso that  $R_1$  cannot be a hydrogen atom when  $R_4$  is an alkyl group having 1 to 5 carbon atoms, and  $R_4$  cannot be a hydrogen atom when  $R_1$  is an alkyl group having 1 to 5 carbon atoms; and

 $R_2$  and  $R_3$  are each independently selected from the group consisting of a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 5 carbon atoms, a substituted or unsubstituted phenoxy group, a substituted or unsubstituted fluoroalkyl group having 1 to 5 carbon atoms, polyfluoroalkyl group having 1 to 5 carbon atoms, a substituted or unsubstituted fluoroalkoxy group having 1 to 5 carbon atoms, a polyfluoroalkoxy group having 1 to 5 carbon atoms, a hydroxyl group, a halogen atom,  $-NX_2X_3$ , wherein  $X_2$  and  $X_3$  independently represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms, and - $NY_2CONY_3Y_4$ , wherein  $Y_2$  to  $Y_4$  independently represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1 to 5 carbon atoms.

## 14-16. (canceled)